

Attorney's Docket No.: 10559-538001/P12444

Remarks

Reconsideration and allowance of the above-identified application are respectfully requested.

35 USC § 103

Claims 1-30 have been rejected under 35 USC § 103(a) as allegedly being unpatentable over Zwern in view of Miller. These rejections are respectfully traversed.

Claims 1, 11, and 21 have been amended to clarify that a positional change of a head of a user is tracked relative to a remote display (see, inter alia, page 2, lines 14-17, Figs. 1 and 3-7). No new matter has been added.

Zwern describes an arrangement in which a user is provided with a perception that a virtual display 20 is fixed in space in front of the user (see, inter alia, Zwern col. 10, lines 29-31). With this arrangement, the user can position an instantaneous viewport 22 which is provided by a head-mounted display 26 at any point within the virtual display 20 by rotating his or her head to look in the desired direction (see, inter alia, Zwern col. 10, lines 31-35). In other words, movement of a user's head (which includes a head-mounted display thereon), causes the field of vision within the virtual display 20 to move in a direction corresponding to the head movement.

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Miller describes a graphical user interface in which application windows may be displayed on a computer monitor in a three-dimensional space in response to a gesture by a user (see, inter alia, Miller Fig. 5, claim 1). The gesture may include activating or deactivating a window (see, inter alia, Miller, claim 1). Fig. 2 of Miller is a diagram of a 3D graphics perspective projection frustrum with a 2D window aligned within a projection plane (see, inter alia, Miller, col. 3, lines 16-18, Fig. 2).

Skilled Artisan would not Combine References

Zwern and Miller are from non-analogous arts. Zwern describes an arrangement in which a portion of a virtual display may be provided to a user in a head-mounted display. Miller describes an arrangement in which a 2-D graphical user interface may be adapted to display application windows in 3-D. The nature of the problem to be solved by Zwern is to allow a user to navigate and view portions of a larger virtual display using a head-mounted display. Miller, in contrast, aims to provide an arrangement for managing application windows in three dimensions within a two dimensional windowing system. Based on the differences in the problems to be solved, the skilled artisan in either of the virtual display art or a computer graphical user

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interface art would not have been motivated to combine these references.

References do not Teach or Suggest all Claim Limitations

Zwern describes an arrangement in which a head-mounted display is used to provide visual information to the user. Movement of the user's head results in movement of both a headtracker 28 and the head-mounted visual display 26. As both the headtracker 28 and the head-mounted visual display 26 are fixed to the head of the user, there is no relative motion between them. Moreover, the visual display 26 is head-mounted as opposed to being remote. Therefore, Zwern fails to disclose or suggest tracking a positional change of a head of a user relative to a remote display as recited in claims 1, 11, and 21. Moreover, Miller, which relates to 3-D representations of application windows, does not disclose or otherwise suggest the deficiencies in Zwern.

Prima Facie Case of Obviousness Has Not Been Established

Accordingly, as there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the teachings of the references; and (ii) the references when combined do not teach

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or suggest all the claim limitations, claims 1, 11, and 21, and their respective dependent claims should be allowable.

Interview Summary

During the telephonic interview between Carl Kukkonen (Reg. No. 42,773) and Examiner Kumar on 10 February 2005, it was pointed out by Mr. Kukkonen that Zwern describes an arrangement in which a head-mounted display is used to provide visual information to the user. It was also described by Mr. Kukkonen that, with Zwern, movement of the user's head results in movement of both a headtracker and the head-mounted visual display. Mr. Kukkonen additionally pointed out that as both the headtracker and the head-mounted visual display are fixed to the head of the user, there is no relative motion between them, and as such, independent claims 1, 11, and 21 were novel and should be allowed. Mr. Kukkonen also stated that the feature clarifying that transforming comprises shifting the virtual 3D scene in a first direction of the user when the head moves from the first direction was not necessary to distinguish the claimed subject matter from Zwern and would be deleted from claims 1, 11, and 21.

Examiner Kumar suggested that the clarification of a remote display would be helpful in further distinguishing Zwern.

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Examiner Kumar also stated that the argument proffered by Mr. Kukkonen would be considered in written form.

Concluding Comments


It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Applicant asks that all claims be allowed. Please apply
any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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